

Construction Industry Coalition on Water Quality

September 1, 2006

Storm Water Panel Report
Deadline: 9/1/06 5pm

VIA: Electronic Mail

EMAIL: commentletters@waterboards.ca.gov

Song Her, Clerk to the Board
State Water Resources Control Board
1001 I Street
Sacramento, California, 95812-0100



Re: Construction Industry Comments on: Storm Water Panel Recommendations to the California State Water Resources Control Board: The Feasibility of Numeric Effluent Limits Applicable to Discharges of Stormwater Associated with Municipal, Industrial, and Construction Activities.

Dear Ms. Her:

Introduction

On behalf of the more than 3,300 member companies of the Construction Industry Coalition on Water Quality (CICWQ), the 2,000 member companies of the Building Industry Association of Southern California, the California Building Industry Association (CBIA), the Building Industry Legal Defense Foundation (BILD), and the California Business Properties Association (CBPA), we would like to thank the California State Water Resources Control Board (SWRCB) for this opportunity to express our interest in the findings of the Storm Water Panel (Panel) recommendations to the SWRCB concerning the feasibility of numeric effluent limits applicable to discharges of storm water associated with municipal, industrial, and construction activities.

CICWQ is comprised of the four major construction and building industry trade associations in Southern California. These include the Associated General Contractors of California (AGC), the Building Industry Association of Southern California (BIA/SC), the Engineering Contractors Association (ECA) and the Southern California Contractors Association (SCCA). The membership of CICWQ is comprised of construction contractors, labor unions, landowners, developers, and homebuilders throughout the region and state. These organizations work collectively to provide the necessary infrastructure and support for the region's business and residential needs. BILD is the legal research and defense arm of BIA/SC. The CBIA is the statewide affiliate of BIA/SC and BILD, and represents the home building industry throughout California. The CBPA represents the interests of business property owners throughout California. All of the above-referenced entities (the "Coalition Partners") are impacted by the Panel's report, as are hundreds of thousands of construction employees throughout California, and builders working to meet the ever-growing demand for housing.

On September 14, 2005, CICWQ, BILD and BIA/SC submitted a "white paper" to the SWRCB entitled "The infeasibility of developing and implementing numeric effluent limits applicable to the construction industry." A copy of the white paper is attached hereto as Attachment A.¹ The "white paper" and concurrent testimony by the authors thereof was directed at the Panel selected by the SWRCB to opine concerning the feasibility of applying numeric effluent limits on stormwater run off in California. The Coalition Partners are also including as an attachment a summary table (Attachment B) indicating our positions on the Panel's recommendations and the rationale therefore.

Comments

This comment letter focuses on how the SWRCB should use both the Panel's central conclusion concerning construction activities and subordinate recommendations. As the Coalition Partners read the Report, the Panel's central conclusion concerning construction is that numeric effluent limits are technically feasible for all large construction sites when advanced treatment systems and chemical polymer addition are used, as qualified. This comment letter explains how the many, important qualifications and caveats set forth in the Report (which were used to reach consensus around the central conclusion) effectively undercut the Panel's central conclusion concerning the technical feasibility of numeric effluent limits applied to construction activities.

The Coalition Partners note, however, that the SWRCB has not indicated whether the recent workshops and invitation to provide these comments relate to formal rulemaking or to the pending re-issuance of the Construction General Permit (CGP). Moreover, the SWRCB has afforded little time to marshal evidence suggested by the Report. Accordingly, our Coalition Partners will provide further comments, evidence and testimony concerning SWRCB proposals if and when appropriate hearings are set concerning any proposal to adopt any of the Panel's recommendations.

In light of the Report's findings, and consistent with the "white paper" provided to the SWRCB staff and the Panel on September 14, 2005, the Coalition Partners remain opposed to the general imposition of any numeric effluent limits for construction sites. This opposition remains regardless of whether or not "advanced treatment systems" are mandated as part and parcel of such an imposition. Although the Panel concludes that implementation of numeric effluent limits is, in its opinion, technically "feasible" if advanced treatment systems with chemical polymers are employed, the Panel also plainly recognizes that implementing end-of-pipe numeric water quality limits on construction sites with such systems is fraught with technical, regulatory, administrative, staffing, and operational obstacles. Indeed, the thirteen qualifying considerations and recommendations cited in the Report are each highly cautionary.

¹ For reasons unclear to CICWQ, BILD and BIA/SC, the above-referenced "white paper" is not listed on the SWRCB's website among the written comments submitted on or before the September 14, 2005 public hearing of the Blue Ribbon Panel. Because the comments made in the white paper are still relevant to the issue immediately at hand, they should be accepted by the SWRCB at this time and addressed accordingly.

Taken together, they indicate that uncritical adoption of the Panel's central conclusion would be unworkable for the construction industry.

Again, concerning construction activities, the central conclusion of the Report is that requiring advanced treatment systems using chemical polymer addition and imposing numeric effluent limits on "large" construction sites is technically "feasible." This conclusion seemingly assumes that absolutely all development sites more than five acres in size (and in some cases as small as one acre) could accommodate large stormwater collection basins and advanced treatment systems using chemical polymer addition. Even if it may be technically, economically and legally feasible to use advanced treatment in a few rare cases, the Report itself strongly implies that across-the-board, uncritical implementation of numeric effluent limitations (without regard to individualized construction project size, location, climate, topography, and threat to receiving water) is unjustified.

For the reasons set forth in detail below, the Coalition Partners urge the SWRCB to recognize that the still-evolving "best management practices" (BMP) approach should continue as the preferred approach concerning construction activities. Admittedly, the iterative BMP approach can be improved upon – but that is constantly occurring. Respectfully, the SWRCB should consider the following detailed comments regarding potential improvements to the NPDES stormwater program, as relates to the construction activity recommendations set forth in the Panel's Report:

The BMP Approach is Far Superior to Numeric Effluent Limits in the Construction Context

The Report's construction section (and the municipal section as well) discusses in detail some of the challenges of using BMPs to control pollutant runoff from construction sites. The use of BMPs is mandated in the current CGP, and the widespread use of such practices has created a marked improvement in water quality leaving construction sites. Unarguably, the iterative BMP approach has long been the preferred approach to meeting water quality goals related to construction activities. With that in mind, the U.S. Environmental Protection Agency's (EPA) regulations provide:

[A] permit for ... a discharge [of regulated storm water] must require ... Best Management Practices (BMPs) to control or abate the discharge of pollutants when ... the practices are reasonably necessary ... to carry out the purposes and intent of the [Clean Water Act]. 40 C.F.R. §122.44(k)(4).

To abandon the wide range of BMPs that are being used now at construction sites in favor of a costly and unproven chemical treatment technology would be to abandon more than a decade of work on the part of the SWRCB, government at all levels, and the regulated community. What is needed instead is the systematic, ongoing and thorough evaluation of appropriate BMP technologies for the control of erosion (potentially other pollutants of concern), with specific recommendations made for appropriate uses of sediment BMPs given the controls needed at diverse construction sites in California.

We urge the SWRCB to foster study of the specific BMPs that will yield the greatest pollutant reductions given inherent variability in site climate, topography, soil, vegetation, location relative to the nearest MS4 system, location relative to receiving waters, and receiving water characteristics, among other factors. To this point, and as we have pointed out in the past to regional boards throughout southern California, any regional board, when developing water quality criteria or rules affecting that criteria, must consider the factors described in California Water Code section 13241(b), which states "factors to be considered by a regional board in establishing water quality objectives shall include, but not be limited to, ...the following: (b) environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto" (emphasis added). These same section 13241 factors are made applicable to the establishment of discharge requirements by California Water Code section 13263.

Thus, the controlling law mandates that the SWRCB and its regional counterpart, when establishing regulatory burdens concerning discharges to the waters, must take into account the environmental characteristics of the respective individual receiving water bodies. Accordingly, any statewide, across-the-board application numeric effluent limits based on advance treatment systems using polymers, which the Report concludes is technically "feasible" for "large" construction sites, would be contrary to the controlling law. Moreover, the Report acknowledges that the theoretically feasible application of numeric effluent limits based on advance treatment systems using polymers to all "large" construction sites would result in storm water discharges that vary from natural loads [Panel Report, Recommendation No. 9]. The SWRCB should pause over this admission in light of the legislative intent and purposes that underlie our state and federal water quality laws which suggest that natural loads should be the aim, and not ignored.

For example, the over-arching objective of the federal Clean Water Act is to "restore and maintain" the natural characteristics of the nation's waters. 33 U.S.C. § 1251(a). To do so, the federal governments and states are urged to work together to "prevent, reduce, and eliminate pollution" of the nation's waters. 33 U.S.C. § 1251(b). Pollution, for these legislative purposes, is defined as "the man-made or man-induced alterations of the chemical, physical, biological and radiological [i.e., natural] integrity of water." 33 U.S.C. § 1362(19). Altering (i.e. uncritically eliminating) natural sediment loads in storm water discharges – as the Report promises advanced treatment would often do – is therefore "pollution" as defined by the Clean Water Act, and is contrary to the Act's primary objective.

The Report therefore effectively concludes that it is technically "feasible" to implement one-size-fits-all numeric effluent limits *only if* we are willing to accept the pollution of our water (the willful deviation from natural sediment loads through the introduction of polymers). To be more pointed, the central conclusion of the Report could be restated thusly: "Pollution – as defined by the federal Clean Water Act (meaning man-induced alteration of the natural properties of storm water) – is technically feasible, subject to myriad qualifications." We urge the SWRCB to reject the notion that – as a matter of general policy – we should be using chemical polymers to "pollute" the waters of California. Because natural sediment loads are wildly variable from region to region, from site to site, and from storm to storm, it is impossible to select and fix any single numerical effluent standard.

As a technical and economic matter as well, we urge the State Board to evaluate carefully the potential effects of using advanced treatment systems employing chemical polymers. The use of such chemical systems, with the high level of operational complexity required and the potential threat to receiving water, will be technically challenging and extremely expensive, and could potentially lead to harmful impacts on receiving water. The Panel's central conclusion is seemingly suggesting that development and construction companies should act as wastewater treatment plant operators (vis-à-vis storm water) and that the companies who operate such chemical systems must shoulder the tremendous environmental responsibility of using appropriate chemicals and dose rates to achieve a target effluent standard notwithstanding the natural variability in influent.

The Panel's report suggests that the iterative BMP approach suffers from a lack of "required training or certification program" for those involved in storm water pollution prevention plan preparation and implementation. To the extent that there might be validity to this suggestion, the alleged need for additional or better training and certification should be a red-flag to the SWRCB concerning the mandated installation and operation of advanced treatment systems at all construction sites five acres or larger. What the construction industry needs instead is time to advance the current BMP regime, rather than being launched in the wrong direction. We support and encourage the critical evaluation of advanced treatment systems, but only as among a variety of possible BMPs. Accordingly, we encourage the SWRCB to conduct the peer-reviewed research of the type that is necessary before these systems could reasonably be required for use in California.

Finally regarding the BMP approach, regulatory enforcement of the current, iterative BMP approach reflected in the most recent CGP has been increasingly rigorous (more than 4000 enforcement actions between 1999 and early 2006). We have included Attachment C, which lists these enforcement actions in California. The SWRCB should recognize that continued regulatory enforcement of this type will – of course – lead to greater water quality protection.

Prescriptive Action Levels Are Highly Problematic

The widespread regulatory imposition of prescriptive action levels – as opposed to the imposition of numeric effluent limits assuming advanced chemical treatment – suffers from the same problems that numeric effluent limits do. Specifically, the wild variability in natural loads from region to region, from site to site, and from storm to storm make it impossible to establish a defensible action level for any given site—let alone one action level for an entire state. For example, for an action level to be meaningful, the statistical process and analysis used to set that action level must first take into account the full range of major sources of variability in effluent measurements (and the year-to-year and storm-to-storm variation in climatic conditions) before a level could ever be set and meaningfully applied. Such a scenario for the data collection to provide the necessary statistical analysis simply does not exist in an industry that is dynamic and transitory; the temporal data requirements are simply insurmountable and infeasible from a practical standpoint.

This imprecision notwithstanding, the imposition of action levels would similarly lead to the imposition of additional monitoring and testing costs for construction companies. The broad

imposition of action levels would therefore divert money away from the implementation and maintenance of BMPs into perfunctory monitoring costs, which may or may not indicate non-compliance, and may or may not lead to any improvements in water quality. Storm water monitoring data are usually characterized by extreme value distributions. When extreme data values that are part of the expected distribution occur, those events should not be confused with non-compliance. For this reason, we recommend instead the enhanced evaluation of BMP performance standards and the consideration of suites of BMPs on a site-by-site basis using an approved list of BMPs available statewide. Stated differently, we recommend the continued development of knowledge concerning the efficacy and appropriateness of BMPs.

We recognize that there may be, in some instances, pollutant concerns associated with construction which are not addressed by the reduction of sediment loads. That said, there is no reason to believe that existing alternative BMPs cannot handle the range of pollutants one may find at any given construction site (absent *force majeure*) and that implementation of alternative systems would not achieve the same level of benefit sought by the Panel in advocating the use of advanced treatment systems. For example, we could support the use of sediment and electrical coagulation BMPs where appropriate and necessary to contain and prevent runoff from concrete wash-down during construction. Our members in the industry have made tremendous strides in conducting site assessments to identify those practices that require a high level of scrutiny such as concrete and stucco construction, material storage, and material covering that are integral to BMP success.

As in many of our other comment letters to various Water Boards in southern California, we also support and endorse the concept of developing a "design storm." Accordingly, we support the concept that BMP performance obligations have to be tied to a specific design storm event, and cannot be wholly open-ended, as engineered systems always are constructed with capacity conditions in mind. Moreover, storms of unusual intensity, which strongly influence water quantity and sediment loads, must be considered in evaluating BMP performance obligations. One need only examine the quality of "natural" storm water draining from uninhabited Southern California watersheds during the past few winter seasons to understand that natural background sediment loads dwarf those from construction sites that utilize appropriate BMP technologies.

Site Scheduling and Phasing of Work

We recognize there is greater potential for off-site discharge of sediment from a construction site during the winter months than during summer dry weather conditions simply because of the probability of an unusually large or intense rainfall event. For those reasons alone, a range of BMPs should be considered and allowed for construction sites that reflect working conditions such as the climate, season, soil type, topography, and proximity to receiving water. BMPs should be evaluated for performance under a range of conditions likely to be encountered in any given climatic region in California.

Construction projects in California are each unique in their own right and should not be treated similarly with respect to controlling stormwater. It is unrealistic and uneconomical to expect construction companies to limit, for example, grading operations during any given season

when the suite of BMPs that exist today can cover the wide range of conditions faced in California. Moreover, the relevant workforce is far too large and dependant to lay-off or idle for many months each year. Nor is it economically feasible to idle expensive capital equipment in such a manner. Again, we urge a systematic evaluation of BMP performance and recommend a hierarchy of BMP placement given the unique characteristics of each construction site.

Additional Economic Considerations

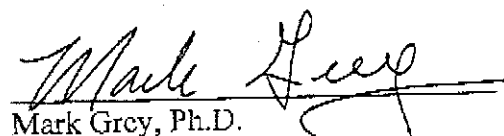
As the Report clearly notes, "the Panel is concerned that monitoring of discharges to meet either Action Levels or Numeric Limits may be costly. The Panel recommends that the Board consider this aspect." Indeed, California Water Code sections 13241 and 13263 mandate such consideration. There is no doubt that if monitoring discharges for action levels or numeric effluent limits is required – whether using advanced treatment or not, the cost to construction companies will be tremendous. We can estimate the order of magnitude of the annual number of sites that would be burdened by the imposition of numeric effluent limits or action levels as approximately 10,000 sites (assuming 5 acre sites) – and many thousands more if one adds the smaller sites (as small as one acre).

The cost of monitoring and sampling alone (i.e., assuming action levels -- but not numeric limits based on the introduction of polymers) could easily cost many tens of thousands of dollars per season per site. The per site, per single rain event cost of hiring trained experts to add carefully calibrated amounts of polymer at 2:00 A.M could easily be thousands of dollars. Importantly, it will take a significant length of time to fathom the size and complexity of such cost projections. The SWRCB therefore should, before considering the application of numeric limits or action levels, seek evidence about such likely costs (given the proposed imposition), and permit the regulated community to provide informed comment thereon.

We are confident that by working together, our Coalition Partners can assist the SWRCB in achieving regulatory balance that will improve water quality while also meeting our statewide obligations and needs. We thank you for your consideration of our comments.

If you have any questions, please feel free to contact me at (909) 396-9993 or mgrey@biasec.org.

Respectfully,



Mark Grey, Ph.D.

Director of Environmental Affairs

Building Industry Association of Southern California